

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application.

Claims 4-7 and 10-19 are now present in this application. Claims 4, 12, 13 and 17 are independent.

Claims 1, 2, 4, 7, 10, 17 and 18 are amended, claims 8 and 9 are canceled, and claims 20-22 are added. No new matter is involved. Reconsideration of this application, as amended, is respectfully requested.

I. Priority Under 35 U.S.C. § 119

Applicants thank the Examiner for acknowledging Applicants' claim for foreign priority under 35 U.S.C. § 119, and receipt of the certified priority document.

II. Proposed Drawing changes

Applicants propose amending Fig. 9 to correct two occurrences of an obvious misspelling of the word "FIELDS"

III. Rejection Under 35 U.S.C. § 102

Claims 1-3, 17 and 18 stand rejected under 35 U.S.C. § 102(b/e) as being anticipated by U.S. Patent 5,872,763 to Osakabe or U.S. Patent 5,978,351 to Spruit et al. (hereinafter, "Spruit") or U.S. Patent 6,646,965 to Kim or EP 0 557 584. This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

A prior art reference anticipates the subject of a claim when the reference discloses every feature of the claimed invention, either explicitly or inherently (see, In re Paulsen, 30 F.3d 1475, 1478,1479, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994), In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990), Hazani v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed. Cir. 1997) and RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

Anticipation requires that each prior art reference contain within its four corners all of the elements of the claimed invention found in substantially the same situation where they do substantially the same work in the same way. Atlas Powder Co. v. E.I. du Pont de Nemours and Co., 588 F.Supp. 1455 [221 USPQ 426] (N.D. Texas 1983), aff'd, 750 F.2d 1569 [224 USPQ 409] (Fed. Cir. 1984); Ecolochem, Inc. v. Mobile Water Technology Co., 690 F.Supp. 778 [

8 USPQ2d 1065] (E.D. Ark. 1988), *aff'd*, 871 F.2d 1096 [10 USPQ2d 1557] (Fed. Cir. 1989). Moreover, a rejection under 35 USC §102(e) cannot properly be based on speculation. See, in this regard, In re GPAC, Inc., 35 USPQ2d 1116 at 1123 (Fed. Cir. 1995) and Ex parte Haymond, 41 USPQ2d 1217 at 1220 (Bd. Pat. App. & Int. 1996).

Furthermore, when relying on the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily follows from the teachings of the applied art. See, Ex parte Levy, 17 USPQ2d 1461, 1464 (BD. Pat. App. & Int. 1990). There can be no speculation or only possibilities involved in a holding of inherency. What is alleged to be inherent must necessarily occur. The mere fact that something may result from a given set of circumstances is not sufficient. In re Oelrich, 212 USPQ 323, 326 (CCPA 1991). “Inherent anticipation requires that the missing descriptive material is ‘necessarily present,’ not merely probably or possibly present, in the prior art.” *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295, 63 USPQ2d 1597, 1599 (Fed. Cir. 2002) (quoting *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)).

Because the Office Action does not identify which references are applied under 35 USC §102(b) and which references are applied under 35 USC §102(e),

Applicants will state their understanding of which references are applied under which statute.

The Office Action acknowledges Applicants' claim for priority under 35 USC §119 and indicates that a certified copy of the priority Korean patent application has been received. The filing date of the Korean priority patent application is September 18, 1999. The Office Action does not require a translation of the Korean priority application. Accordingly, Applicants have an effective filing date of this U.S. Application, under 35 USC §119, of September 18, 1999.

Because none of the four applied references have a patent date that is more than one year earlier than Applicants' effective filing date of September 18, 1999, Applicants respectfully submit that none of the applied references is properly applied under 35 USC §102(b).

In other words, all of the applied references are properly applicable only under 35 USC §102(e).

Applicants will discuss each reference as it is applied, i.e., separately.

1. Osakabe

Claims 1-3 recite a combination of features, including recording optional data, as test data, onto a desired area of an optical recording medium while varying respective values of at least two factors comprising a recording power

value and a characteristic value of recording pulses.

Osakabe varies the intensity values of erasing power and bottom power or a laser light beam to create test recording signals that are recorded onto an optical disk –see the first sentence of the Abstract. However, Osakabe does not also create test signals that are recorded onto an optical disk by varying a characteristic value of the recording pulses other than recording power values. Such values include, for example, pulse duration and level (i.e., intensity, as contrasted with power, which is the time rate of the intensity).

Accordingly, Osakabe does not anticipate claims 1-3.

With respect to claims 17 and 18, claims 17 and 18 positively recite a rewritable optical recording medium having a test area for recording test data, the test area comprising a first field on which a value of a factor having an influence on recording characteristics is recorded as test data, while being varied and at least one second field on which a value of another factor having an influence on recording characteristics is recorded, as test data, while being varied.

The Office Action fails to point out, and Applicants have not been able to find, in Osakabe, where the recited first and second fields exist. Osakabe discloses only one predetermined test area – see col. 5, lines 6-27, especially line 15, and col. 1, lines 40-60, especially line 46, with absolutely no mention of a first field for recording a value of one factor and a second field for recording a value of another factor. Applicants respectfully submit that, at best, Osakabe

discloses a single predetermined test area with no disclosure, either express or inherent, of the recited first and second fields. Thus, Osakabe does not anticipate claims 17 and 18.

2. Spruit

Spruit also fails to disclose the invention recited in claims 1-3. Claim 1 recites a combination of features, including determining values of the factors involving an optimum recording condition based on reproduction characteristics of the reproduced test data, wherein the factor values comprise a recording power value and a characteristic value of recording pulses. Spruit fails to disclose these features.

Spruit also fails to disclose, either expressly or inherently, the recited first and second fields in claims 17 and 18. Spruit discloses recording a series of test patterns on the medium, each pattern having a different value of the recording parameter. However, Spruit also discloses that the recording process may include erasure of previously recorded information either by direct overwrite or in a separate pass. See col. 1, lines 30-62. Thus, Spruit does not expressly or inherently (necessarily) disclose a re-writable optical recording medium having a test area for recording test data, the test area comprising a first field on which a value of a factor having an influence on recording characteristics is recorded as test data, while being varied and at least one

second field on which a value of another factor having an influence on recording characteristics is recorded, as test data, while being varied, as recited.

3. Kim

Claim 1 recites a combination of features, including determining values of the factors involving an optimum recording condition based on reproduction characteristics of the reproduced test data, wherein the factor values comprise a recording power value and a characteristic value of recording pulses. Kim fails to disclose these features.

Kim writes test digital data “into a certain test region of the writable optical storage medium” – see col. 6, lines 25-35. This is not a disclosure, expressly or inherently, of the features recited in claims 17 and 18, i.e., a re-writable optical recording medium having a test area for recording test data, the test area comprising a first field on which a value of a factor having an influence on recording characteristics is recorded as test data, while being varied and at least one second field on which a value of another factor having an influence on recording characteristics is recorded, as test data, while being varied. The assertion that claims 17 and 18 are disclosed in Tables 1 and 2 of Kim fails to address the positively recited features of claims 17 and 18 and fails to make out a prima facie case of anticipation of the claimed invention by Kim.

4. EP '584

Claim 1 recites a combination of features, including determining values of the factors involving an optimum recording condition based on reproduction characteristics of the reproduced test data, wherein the factor values comprise a recording power value and a characteristic value of recording pulses. EP '584 fails to disclose these features.

EP '584 discloses forming a test pit in a power calibration area of a writable optical disc but this does not anticipate what is recited in claims 17 and 18. The assertion in the Office Action that this product is met when EP '584 operate upon the record medium fails to address the positively recited features of the first and second fields. EP '584 does not expressly or inherently disclose what is positively recited in claims 17 and 18, i.e., a re-writable optical recording medium having a test area for recording test data, the test area comprising a first field on which a value of a factor having an influence on recording characteristics is recorded as test data, while being varied and at least one second field on which a value of another factor having an influence on recording characteristics is recorded, as test data, while being varied.

Accordingly, none of Osakabe, Spruit, Kim or EP '584 anticipates claims 17 and 18, the rejection of claims 17 and 18 under 35 USC §102(b/e) as anticipated by Osakabe or Spruit or Kim or EP '584 is improper and should be

withdrawn, and claims 17 and 18 allowed.

With respect to claim 2, which has been incorporated into claim 1, the Office Action interprets (1) the modulation ability in Osakabe, (2) either the modulation factor or jitter in Spruit, (3) the speed factor in Kim, and (4) the jitter ability in the EP document for the limitations with respect to claim 2.

Applicants respectfully disagree with this statement. Claim 1, as amended, positively recites a combination of features recording optional data, as test data, onto a desired area of an optical recording medium while varying respective values of at least two factors each having an influence on data recording characteristics of the optical recording medium when data is recorded on the optical recording medium, wherein the two factors comprise a recording power value, and a characteristic value of recording pulses, and wherein the characteristic value of the recording pulses include a width and/or level of recording pulses. None of the applied references disclose this combination of features.

Accordingly, claims 1-3, as amended, are not anticipated by any of the applied references.

Claims 4, 5, 8, 9, 10, 17 and 18 stand rejected under 35 U.S.C. § 102(b/e) as being anticipated by Osawa/EP '584 or Spruit respectively. These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the

Office Action, and are not being repeated here. This rejection is moot with respect to claims 8 and 9 because they are cancelled.

For reasons stated above, 35 USC §102(b) is not a proper basis for these rejections.

Independent claim 4 recites that first test data is recorded onto a portion of test area and that second test data is recorded onto the remaining portion of the test area. None of the applied references discloses this feature and the Office Action fails to disclose where any of the applied references disclose this feature. In fact, the Office Action never addresses this positively recited feature other than to state that it is disclosed. However, for the reasons stated above regarding a similar feature recited in claims 17 and 18, directed to the first and second fields of a test area, none of the applied references expressly or inherently discloses the recited first and second test areas.

Claims 5 and 10 depend from claim 4 and are not anticipated at least for the reasons that claim 4 is not anticipated.

With respect to claims 17 and 18, Applicants' remarks directed to these claims appear above and are incorporated here.

Accordingly, none of Osakabe, Spruit, or EP '584 anticipates claims 4, 5, 10, 17 or 18, the rejection of claims 4, 5, 10, 17 and 18 under 35 USC §102(b/e) as anticipated by Osakabe or Spruit or EP '584 is improper and should be withdrawn, and claims 4, 5, 10, 17 and 18 allowed.

Claims 4, 5, 8 and 9 stand rejected under 35 U.S.C. § 102 as being anticipated by Kim. These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not being repeated here. Because claims 8 and 9 are cancelled, this rejection is moot with respect to claims 8 and 9.

For reasons stated above, the 35 USC §102(b) is not a proper basis for these rejections.

Independent claim 4 recites that first test data is recorded onto a portion of test area and that second test data is recorded onto the remaining portion of the test area. None of the applied references discloses this feature and the Office Action fails to disclose where any of the applied references disclose this feature. In fact, the Office Action never addresses this positively recited feature other than to state that it is disclosed. However, for the reasons stated above regarding a similar feature recited in claims 17 and 18, directed to the first and second fields of a test area, none of the applied references expressly or inherently discloses the recited first and second test areas.

Claim 5 depends from claim 4 and is not anticipated at least for the reasons that claim 4 is not anticipated.

With respect to claims 17 and 18, Applicants' remarks directed to these claims appear above and are incorporated here.

Accordingly, Kim does not anticipate claims 4 or 5, the rejection of claims

4 and 5 under 35 USC §102(b/e) as anticipated by Kim is improper and should be withdrawn, and claims 4 and 5 allowed.

Claims 6 and 13 stand rejected under 35 U.S.C. § 102(b/e) as being anticipated by either EP '584 or Spruit. These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not being repeated here.

For reasons stated above, the 35 USC §102(b) is not a proper basis for these rejections.

Independent claim 4 recites that first test data is recorded onto a portion of test area and that second test data is recorded onto the remaining portion of the test area. None of the applied references discloses this feature and the Office Action fails to disclose where any of the applied references disclose this feature. In fact, the Office Action never addresses this positively recited feature other than to state that it is disclosed. However, for the reasons stated above regarding a similar feature recited in claims 17 and 18, directed to the first and second fields of a test area, neither of the applied references expressly or inherently discloses the recited first and second test areas.

Claim 6 depends from claim 4 and is not anticipated at least for the reasons that claim 4 is not anticipated.

The rejection of claim 13 is puzzling and is contradicted by the explicit statement on page 4 of the Office Action that “[C]laim 13 is allowed over the art of record. None of the cited prior art teach the additional ability of vary the signal format while recording test data onto the test area in this environment as recited by the claim.

Moreover, the rejection of claim 13 only addresses jitter and does not address the positively recited feature of “while varying a format of recording signals.”

Accordingly, Applicants respectfully submit that the Office Action fails to make out a prima facie case of anticipation of the invention recited in claim 13 by either EP ‘584 or Spruit.

Thus, neither Spruit or EP ‘584 anticipates claims 4 or 18, the rejection of claims 4 and 13 under 35 USC §102(b/e) as anticipated by Spruit or EP ‘584 is improper and should be withdrawn, and claims 4 and 13 allowed.

IV. Allowable Subject Matter

The Office Action Summary, Form PTO-326, states that claim 12 is allowed, that claims 7, 11, 14-16 and 19 are objected to, and that claim 13, among others, is rejected. The body of the Office Action does not mention why claim 12 is allowed, but does mention why claim 13 is allowed. Perhaps the reasons for allowance of claim 13 were meant to apply to claim 12. Clarification

is respectfully requested. The Office Action also states that claims 7, 11, 14-16 and 19 would be allowable if rewritten in independent form.

Applicant thanks the Examiner for the early indication of allowable subject matter in this application. However, claims 7, 11, 14-16 and 19 have not been rewritten in independent form at this time, since it is believed that independent claim 4, from which claims 7 and 11 depend, and independent claim 13, from which claims 14-16 depend, and independent claim 17, from which claim 19 depends, are allowable.

V. New Claims 20-22

None of the applied references discloses determining an optimum write strategy based on measuring respective jitters of reproduced test data signals, as recited in claims 20-22. Accordingly, Applicants respectfully submit that new claims 20-22 are allowable over the applied art.

VI. Additional Cited References

Since the remaining references cited by the Examiner have not been utilized to reject the claims, but have merely been cited to show the state of the art, no comment need be made with respect thereto.

VII. Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Robert J. Webster, Registration No. 46,472, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

Pursuant to the provisions of 37 CFR 1.17 and 1.136(a), Applicants respectfully petitions for a three (3) month extension of time for filing a response in connection with the present application. The required fee of \$950.00 is attached hereto.

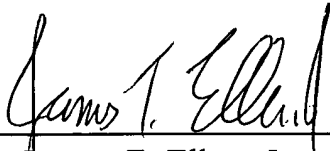
Application No.: 09/664,364


Reply to March 4, 2004 Office Action

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachments: Drawing Replacement Sheet
Marked-up Page Showing Drawing Corrections

MARKED-UP DRAWING

Fig. 9

